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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/712,267	11/14/2003	Jeffrey D. Martin	032161R066	8051

441 7590 03/17/2005

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EXAMINER

MAYO, TARA L

ART UNIT	PAPER NUMBER
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3671

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/712,267

Applicant(s)

MARTIN, JEFFREY D.

Examiner

Tara L. Mayo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 December 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-48 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-48 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The prior objections to the Specification have been overcome by the response filed 02 December 2004.

Claim Objections

2. The prior objections to the claims have been overcome by the response filed 02 December 2004.

Claim Rejections - 35 USC § 112

3. The prior rejection of the claims under 35 USC §112, second paragraph have been overcome by the response filed 02 December 2004.

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 47 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the Specification as originally filed fails to provide support for

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the claimed pillow comprising “non-continuous laterally extending spacing furrows” between projections.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 4, 21, 34, 41, 43, 45 and 46 are rejected under 35 U.S.C. 102(b) as being anticipated by Bonaddio et al. (U.S. Patent No. Des. 372,158).

Bonaddio et al. '158, as seen in Figures 1 through 4, show a pillow comprising:
with regard to claims 1, 21 and 34,

a foam main-body having a longitudinal length and a lateral width and a convex upper surface,

a plurality of foam projections in first and second groups (a group proximate the edges of the pillow and a group in the center region of the pillow) which define different support characteristic zones, and

wherein said pillow has a maximum height in a central region of said pillow;
with regard to claim 2,

wherein said projections are of a foam material;
with regard to claim 4,

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wherein said pillow is formed as a monolithic foam body;
with regard to claim 21,

wherein the projections of said first and second groups have an average cross-sectional width value that is greater than a distance of extension of said projections transversely off a supporting surface of said main body;

with regard to claim 41,

wherein the projections have a lateral direction width that is greater than a corresponding projection height; and

with regard to claim 43,

wherein the projections have a lateral width that is greater than a corresponding projection height.

With regard to claims 45 and 46, because the compression of the projections is proportional to the load applied during use, Bonaddio et al.'158 anticipate the limitations with respect to the percentage of compression because the device is capable of performing as claimed.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 3, 8, 9, 10, 11, 12, 35, 36, 37 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Schaefer et al. (U.S. Patent No. 4,726,087).

Bonaddio et al. '158 further show:

with regard to claim 8,

the foam extensions having an axial extension axis extending entirely through the vertical thickness of the main body;

with regard to claim 9,

wherein the first and second groups of projections each include longitudinally extending rows of spaced apart projections;

with regard to claim 11,

wherein the projections within said first group are of a common size and configuration and the projections within said second group are of a common size and configuration; and

with regard to claim 42,

wherein the projections have a lateral direction width that is greater than a corresponding projection height.

Bonaddio et al. '158 fail to teach:

with regard to claim 3,

the pillow including first and second rows of projections, the projections in the first row having a larger radius than the those in the second row;

with regard to claims 3, 8, 12 and 37,

the projections/extensions being cylindrical;

with regard to claim 7,

the first and second rows of projections being of different size;

with regard to claim 10,

the projections of the first group being smaller in volume than the projections of the second group;

with regard to claims 35 through 37,

the specific characteristics of first and second groups of projections as claimed.

Schaefer et al. '087, as seen in Figures 1 and 2, show a unitary (col. 6, lines 28 through 31) foam pillow (10) comprising:

with regard to claim 3,

a first row of cylindrical foam projections (16) and a second row of cylindrical foam projections (20) and a top surface of the cylindrical projections in the first row have a larger radius than top surfaces of the cylindrical projections in said second row;

with regard to claim 7,

first and second groups of projections including multiple rows of a first size projection and a second size projection;

with regard to claim 8,

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wherein said first and second groups include cylindrical foam projections;
with regard to claim 9,

wherein said first group of multiple rows of projections include a pair of laterally spread apart longitudinally extending rows of projections in a central region of the surface of said foam main body, and wherein said second group of multiple rows of projections include a pair of longitudinally extending rows of projections that are positioned to opposite lateral sides of the pair of the longitudinally extending rows of the projections of said first group in the central region;

with regard to claim 10,

wherein the projections of said first group are smaller in volume than the projections of said second group;

with regard to claim 11,

wherein the projections within said first group are of a common size and configuration within said first group, and wherein the projections within said second group are of a common size and configuration within said second group;

with regard to claim 12,

wherein the projections in each of said first and second groups are cylindrical;
with regard to claim 35,

wherein said projections include a first group (20) that is greater in number and smaller in projection volume relative to a second group (16) that is less in number but greater in projection volume;

with regard to claim 36,

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wherein said projections in said first and second groups have essentially a common height and maximum width of the projections in said second group is greater than that of said first group (col. 6, lines 14 through 23); and
with regard to claim 37,

wherein said projections are cylindrical projections with the first group having a smaller radius than that of said second group.

With regard to claims 3, 7 and 10, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to make the projection of the pillow shown by Bonaddio et al. '158 of different sizes as taught by Shaefer et al. '087. The motivation would have been to provide differential support for a person's head.

With regard to claims 3, 8, 12 and 37, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device shown by Bonaddio et al. '158 such that the projections would be cylindrical as taught by Schaefer et al. '087 since it has been held that the shape of a claimed device is a matter of choice which a person of ordinary skill in the art would find obvious absent persuasive evidence that the particular configuration of the claimed device is significant. *In re Dailey*, 357 F.2d 669, 149 USPQ 47 (CCPA 1966).

With regard to claims 35 through 37, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device shown by Bonaddio et al. '158 such that it would include first and second groups of projections

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as taught by Schaefer et al. '087. The motivation would have been to effect differential support characteristics in the pillow.

10. Claims 5, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Veilleux et al. (U.S. Patent No. 6,327,725 B1).

Bonaddio et al. '158 further teach:

with regard to claim 14,

said projections of the first and second groups being of a common general shape.

Bonaddio et al. '158 fail to teach:

with regard to claims 5 and 13,

the pillow being formed of a visco-elastic foam; and

with regard to claim 13,

the foam material having a density range of 2.0 to 3.0 pcf.

Veilleux et al. '725, as seen in Figures 1 and 2, show a contour pillow (10) having a main body (11) comprised entirely of visco-elastic foam (col. 2, lines 45 through 47) and expressly teaches the desirability of visco-elastic for its ability to evenly distribute loads (col. 1, lines 29 through 33).

With regard to claims 5 and 13, it would have been within the ordinary level of skill for one in the art of pillows at the time the invention was made to modify the device shown by Bonaddio et al. '158 such it would be made entirely of visco-elastic foam as taught to be advantageous by Veilleux et al. '725. The motivation would have been to improve the support characteristics of the pillow.

With regard to claim 13, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine an optimal density range for the visco-elastic material of the device disclosed by the combination of Bonaddio et al. '158 and Veilleux et al. '725, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

11. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158) in view of Schaefer et al. (U.S. Patent No. 4,726,087) as applied to claim 3 above, and further in view of Veilleux et al. (U.S. Patent No. 6,327,725 B1).

Bonaddio et al. '158 in view of Schaefer et al. '087 fail to teach:
with regard to claim 6,
the pillow being formed of a visco-elastic foam.

Veilleux et al. '725, as seen in Figures 1 and 2, show a contour pillow (10) having a main body (11) comprised entirely of visco-elastic foam (col. 2, lines 45 through 47) and

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expressly teaches the desirability of visco-elastic for its ability to evenly distribute loads (col. 1, lines 29 through 33).

With regard to claim 6, it would have been within the ordinary level of skill for one in the art of pillows at the time the invention was made to modify the device shown by the combination of Bonaddio et al. '158 and Schaefer et al. '087 such that it would be made entirely of visco-elastic foam as taught to be advantageous by Veilleux et al. '725. The motivation would have been to improve the support characteristics of the pillow.

12. Claims 15 through 20, 23 through 33, 38, 39, 40, 44, and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnadio et al. (U.S. Patent No. Des. 372,158) in view of Schaefer et al. (U.S. Patent No. 4,726,087) and Davidson, Jr. (U.S. Patent No. 5,160,785A).

Bonnadio et al. '158, as seen in Figures 1 through 4, further show :
with regard to claim 18,

said surface of said main body having a convex curvature which defines the maximum height central region of said pillow;

with regard to claim 19,

wherein said convex curvature extends in a lateral direction fully between front and rear longitudinal edges of said pillow;

with regard to claims 23 and 38,

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wherein the first and second types of projections are isolated from one another within each respective zone so as to expose regions of the main body which surround respective projection base-to-main body contact edging;

with regard to claim 24,

the first and second types of projections including laterally spaced apart longitudinally extending rows of projections;

with regard to claim 27,

whereas said pillow has a symmetric relationship with respect to projection types about a centrally located longitudinal cross-section line;

with regard to claim 28,

wherein said first projection type is more centrally positioned than said second projection type;

with regard to claim 31,

a main body of foam;

a first row of foam projections of a first projection type; and

a central zone of foam projections of a second projection type, said first row of foam projection of said first projection type being positioned laterally of said central zone of foam projections;

with regard to claim 32,

further comprising a second row of foam projections of the first projection type (18) which is positioned to an opposite lateral side of said central zone as said first row of foam projections of said first projection type

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with regard to claim 39,

wherein each of said first type of projection and said second type of projection has a lateral direction width that is greater than a corresponding height projection.

Schaefer et al. '087, as seen in Figures 1 and 2, further show:

with regard to claim 23,

a main body (12 and 14, in combination);

projections (22) arranged in a plurality of rows extending off said main body, and said projections including a first type of projection (20) having a first support characteristic and a second type of projection (16) having a second support characteristic, with said first and second projection types being arranged on said main body to define first and second different support characteristic zones;

with regard to claim 20,

wherein the projections of said first group include cylindrical projections, and the projections of said second group include cylindrical projections that are laterally external to said first group of projections and are of a larger radius than a cylindrical projection in said first group.

Bonaddio et al. '158 in view of Schaefer et al. '087 fail to teach:

with regard to claims 15 and 23,

a third projection type defining a third different support characteristic zone;

with regard to claims 16 and 24,

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the third projection type including a longitudinally extending ridge extension;
with regard to claims 16 and 25,

a second longitudinally extending ridge extension;
with regard to claim 28,

the first and second projection types having CFD values of 0.35 to 0.55 lbs. and 0.60 to 0.80 lbs. to compress said projection types 50%, respectively, with a density range of foam forming the first and second projection types of 2.0 to 3.0 pcf;
with regard to claims 17 and 29,

the third projection type including a ridge extension extending along a forward or front longitudinal edge of the main body;
with regard to claim 31,

a first foam ridge extension extending along a front edge region of the main body and positioned on the opposite lateral side of the first row of foam projections as the central zone of foam projections;
with regard to claim 33,

a second foam ridge extension positioned laterally rearward of the second row of foam projections of the first projection type;
with regard to claim 38,

there being further provided a longitudinal ridge of extension positioned for neck contact;
with regard to claim 40,

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the exposed portion of the main body occupying about 10 to 30% of the generally rectangular outline;

with regard to claim 44,

the ridge being uninterrupted and extending longitudinally across a plurality of projections; and

with regard to claim 48,

the central zone being less firm in support than the lateral zones.

Davidson, Jr. '785, as seen in Figures 1 through 3A, shows a padding body (20) comprising a plurality of foam projections (28), and first and second foam ridge extensions (32) bordering the plurality of projections to make the body useful as a pillow (col. 4, lines 4 through 8).

With regard to claims 15 through 17, 23 through 25, 29, 31, 33, 38 and 44, it would have been obvious to one having ordinary skill in the art of pillows at the time the invention was made to modify the device shown by the combination of Bonaddio et al. '158 and Schaefer et al. '087 such that it would include first and second foam ridge extensions on the edges as taught to be desirable by Davidson, Jr. '785. The motivation would have been to finish the edges of the body thereby making it useful as a pillow.

With regard to claims 16, 26 and 48, the combination of Bonaddio et al. and '158 Schaefer et al. '087 as modified by Davidson, Jr. '785 show a pillow wherein the first, second and third projection types are arranged laterally in a sequence of said first ridge extension (70,

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71 and 72), a first longitudinal row of said second type projection (16), a pair of longitudinal rows of said first type projection (20), a second longitudinal row of said second type projection (18) and a second ridge extension (70, 71 and 72).

With regard to claim 28, it would have been obvious to one having ordinary skill in the art at the time the invention was made to determine optimal CFD and density ranges for both the first and second projection types, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

With further regard to claims 16, 17 and 29, while Davidson, Jr. '785 teaches placing first and second ridge extensions on the end edges of a main body, it would have been within the ordinary level of skill for one in the art to place ridge extensions on the longitudinal edges of the main body shown by Schaefer et al. '087.

With regard to claim 40, as Applicant fails to disclose any criticality or provide evidence of an unexpected result, the claimed rang has not been given patentable weight.

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bonaddio et al. (U.S. Patent No. Des. 372,158).

Bonaddio et al. '158 teach all of the features of the claimed invention with the exception(s) of:

with regard to claim 22,

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the distances of extension of the first and second groups being within 15% of each other.

With regard to claim 22, it would have been obvious to one having ordinary skill in the art at the time the invention shown by Bonaddio et al. '158 was made to determine ranges of extension for both the first and second groups, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Response to Arguments

14. Applicant's arguments with respect to claims 1 through 39 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to


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37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tara L. Mayo whose telephone number is 703-305-3019. The examiner can normally be reached on Monday through Friday 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703-308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

 tm
07 March 2005

